

FIG. 1



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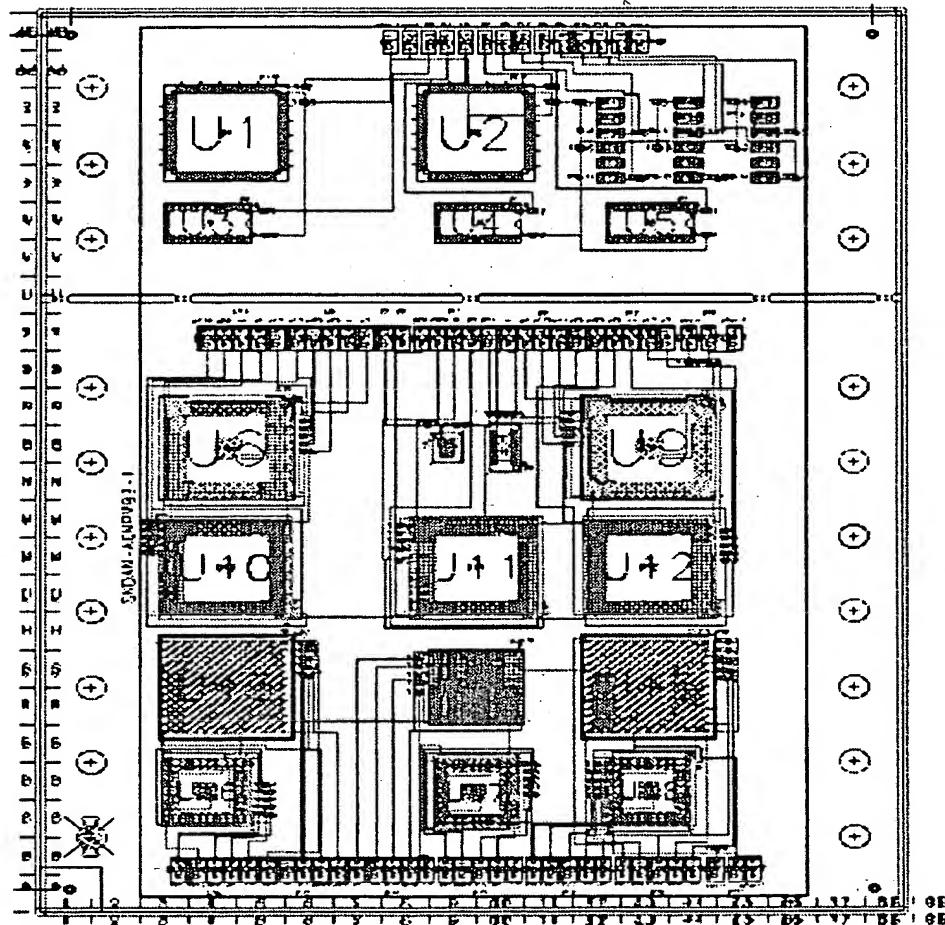
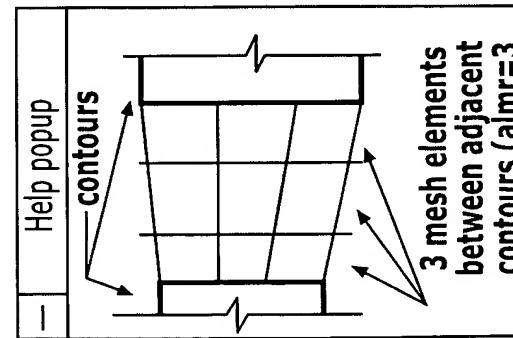


FIG. 2



<input type="checkbox"/> Show Help <input type="checkbox"/> Mesh Properties <input type="checkbox"/> Target Mesh Size (sc) <input type="checkbox"/> Material Properties <input type="checkbox"/> Minimum Component Area (ma) <input type="checkbox"/> Use Bounding Boxes instead of Actual Geometry (ue)	
Part Geometry <input type="text" value="2.000e-0"/> <input type="text" value="0.07"/> <input type="checkbox"/> Use Bounding Boxes instead of Actual Geometry (ue)	
Mesh Geometry <input type="checkbox"/> Scale Properties to Target Mesh Size <input type="text" value="2"/> Number of Subdivisions of Line Segments (1mr) <input type="text" value="4.000e-0"/> Number of Mesh Subdivisions between Parallel Lines (almr) <input type="text" value="8.000e-0"/> Maximum line segment length (fc) <input type="text" value="4.000e-0"/> Chamfer Threshold (dcc) <input type="text" value="0"/> Minimum Vertices for Contours (polygons) (st) <input type="text" value="2.000e-0"/> Minimum Chord Length for Arc Idealization (sc) <input type="text" value="5.000e-0"/> Parallel Line Discrimination Distance (plmc) <input type="text" value="5.000e-0"/> Point Discrimination Distance - COVER (sclc) <input type="text" value="4.000e-0"/> Point Discrimination Distance - PWB (dslc) <input type="text" value="1.e 5.e"/> Mentor Resolution (e) [1.e 5.e]	
<p>Adjacent contours within a distance of almr will be considered when constricting the mesh for a contour.</p> <p><input type="button" value="Cancel"/> <input type="button" value="Apply"/> <input type="button" value="Reset to Defaults"/></p>	



Help for selected field

FIG. 3



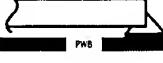
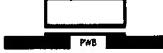
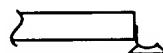
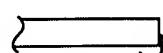
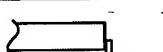
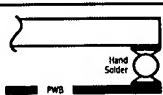
Durability Module	Description	Configuration
CCC	Leadless chip component	
54	DIO	
52	IND	
58	Hybrid-GW	
Hybrid-SGW	Spider gull wing	
56	L-lead	
J-lead	J-leaded component	
59	PTH	
PBGA	Plastic ball grid arrays	

FIG. 4



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Durability Part Number Table

Part Number	Package Name	Lead Style Name	Lead Material Name
172908-00K	313_BGA_Package_100milpitch	HYBRID_002K	CU
173332-00P	TII-TSOP-54_10x22mm	HYBRID_024	CU
173334-11J	pqfp_208_1e		
1733370-00L	360_CBGA_Package		
173446-00K	388_BGA_Package		
280-10020-101	280-10020-101		
280-10025-101	280-10025-101		
280-10025-102	280-10025-102		
280-10025-103	280-10025-103		
280-10025-104	280-10025-104		
280-10025-105	280-10025-105		

Durability Part Number Table

Package Name	Substrate Length	Substrate Width	Balls	Thrm Balls X	Thrm Balls Y
144_BGA_Package	0.512	0.512	144	0	0
144_BGA_Package_ana	0.512	0.512	144	0	0
313_BGA_Package_100milpitch	1.380	1.380	169	0	1
313_BGA_Package_50milpitch	1.380	1.380	625	0	0
324_BGA_Package	0.906	0.906	324	6	6
352_BGA_Package	1.378	1.378	352	0	0
360_CBGA_Package	0.980	0.980	361	0	0
388_BGA_Package	1.378	1.378	388	6	6
Dummy_BGA_Package	0.512	0.512	144	12	12
ird_pbga_225f_025	1.180	1.180	225	0	0

FIG. 5



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Durability Part Number Table

Part Number	Package Name	Lead Style Name	Lead Material Name
172908-00K	313 BGA Package_100milpitch	HYBRID_002K	CU
173332-00P	TII-TSOP-54_10X22mm	HYBRID_024	CU
173334-11J	pqfp_208_1e		
173370-00L	360 CBGA Package		
173446-00K	388 BGA Package		
280-10020-101	280-10020-101		
280-10025-101	280-10025-101		
280-10025-102	280-10025-102		
280-10025-103	280-10025-103		
280-10025-104	280-10025-104		
280-10025-105	280-10025-105		

Durability Part Number Table

Lead Style Name	S1	S2	S3	RHO	R1	R2	E	H1	D	S1
900-11695-fig1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYBRID_001	0.000	-0.030	0.000	0.000	0.013	0.000	0.047	0.014	0.015	
HYBRID_002	0.005	0.080	0.080	0.000	0.750	0.650	0.008	0.008	0.050	0.010
HYBRID_002A	0.020	0.030	-0.035	0.000	0.005	0.005	0.105	0.105	0.026	0.007
HYBRID_002b	0.025	0.030	0.055	0.000	0.005	0.005	0.000	0.057	0.007	0.010
HYBRID_002c	0.010	0.030	0.056	0.000	0.005	0.005	0.000	0.035	0.006	0.006
HYBRID_002d	0.000	0.006	0.021	0.000	0.005	0.005	0.000	0.040	0.018	0.004
HYBRID_002d	0.000	0.006	0.021	0.000	0.001	0.001	0.000	0.050	0.017	0.011
HYBRID_002e	0.016	0.013	0.051	0.000	0.005	0.005	0.000	0.072	0.009	0.004
HYBRID_002f	0.037	0.012	0.071	0.000	0.006	0.006	0.063	0.012	0.005	

FIG. 6



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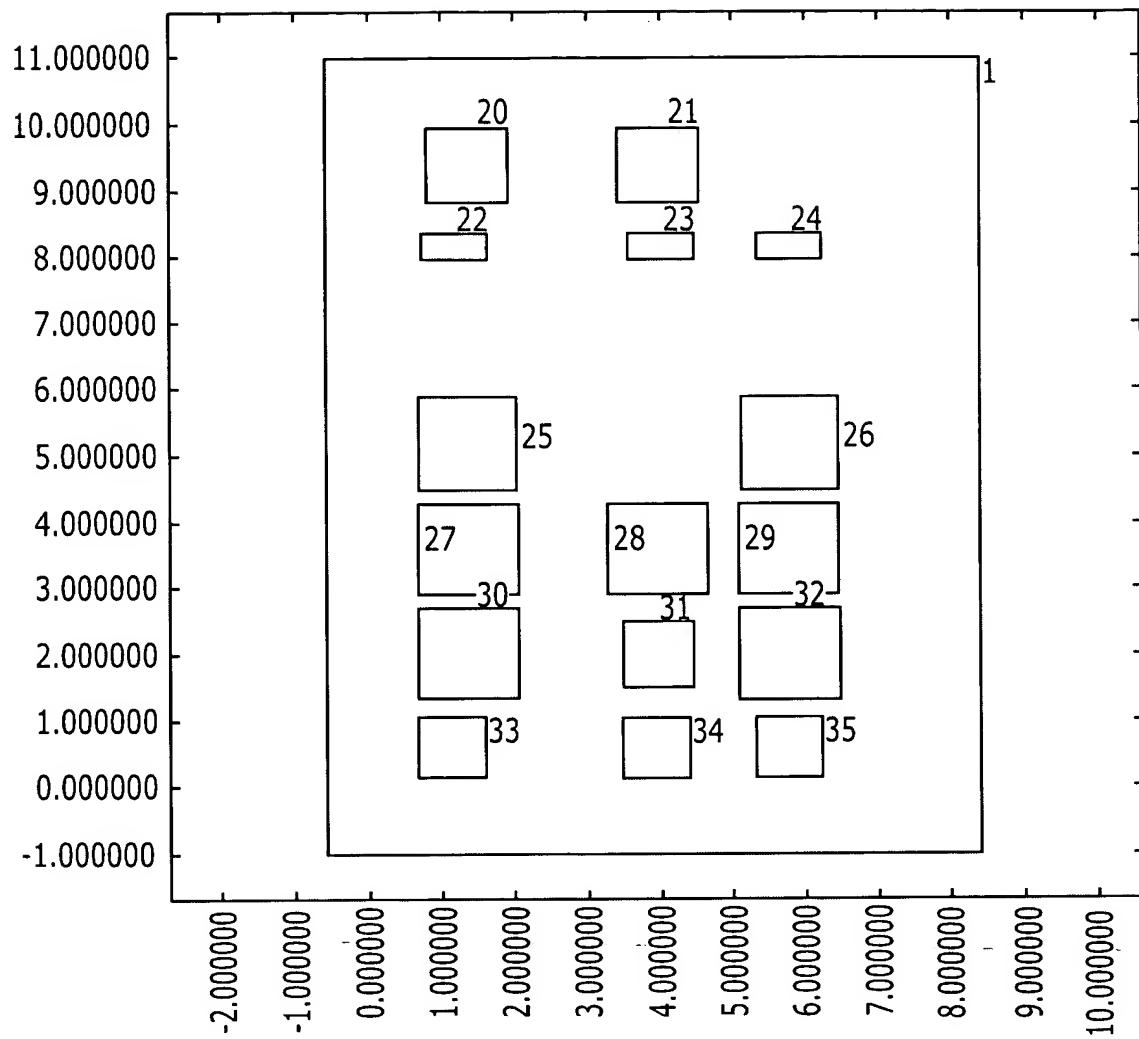


FIG. 8



Title: METHOD, SYSTEM AND COMPUTER PROGRAM PRODUCT FOR
MULTIDISCIPLINARY DESIGN ANALYSIS OF STRUCTURE COMPONENTS
Appl. No. 10/074,914, filed February 12, 2002
Inventor(s): Mostafa Rassaian
Attorney Docket No. 038190/235965

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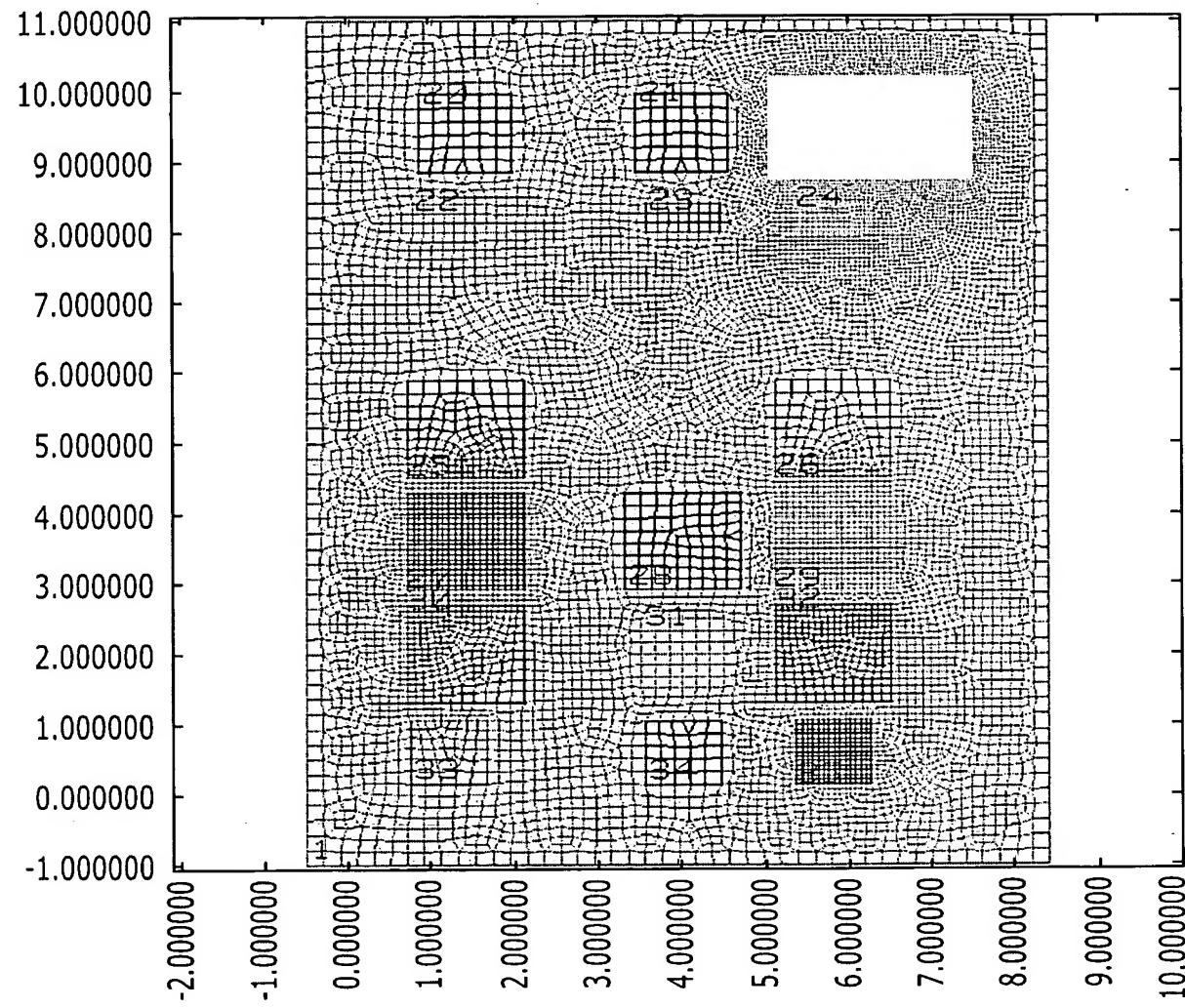
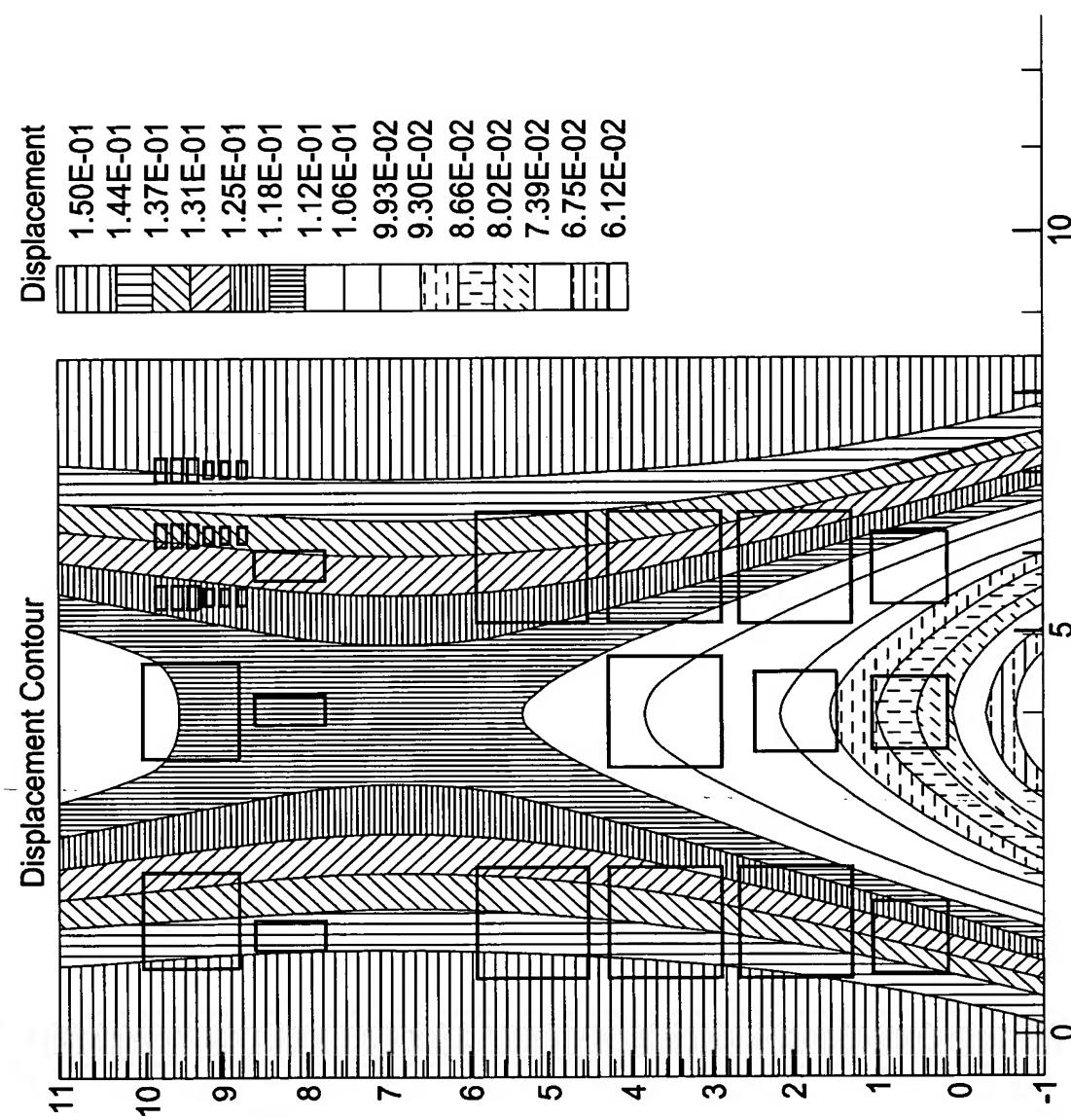


FIG. 9

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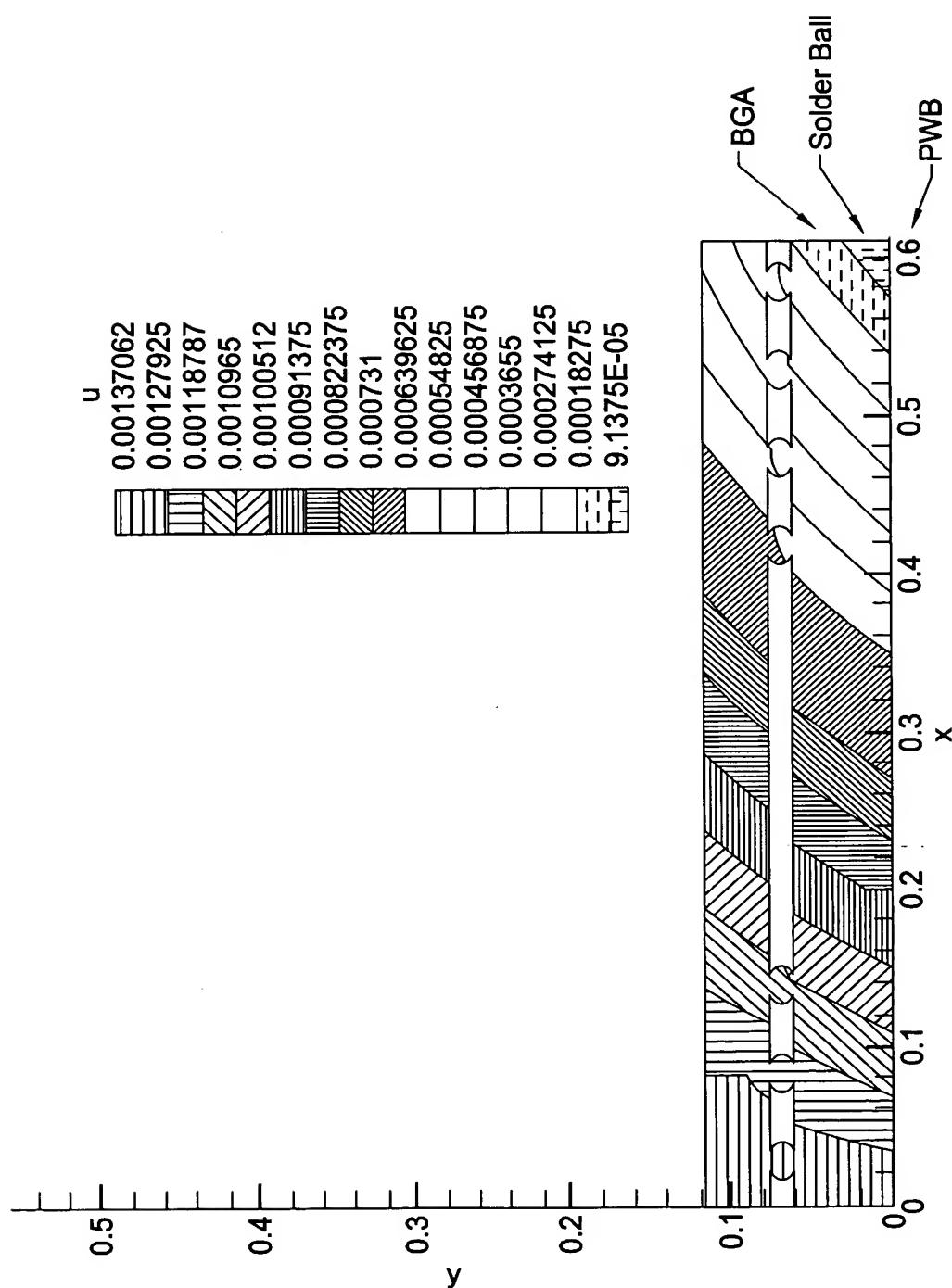
FIG. 11





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FIG. 12





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